

RMS #1 Template Label:	Crop, 8-20%, MWD, Animal	State: OHIO	MLRA / CRA: Statewide	Page 1 of 3
RMS #1 Name/Phrase:	RMS #1 High Treatment			Location Area
Present Land Use:	Cropland	Planned Land Use:	Cropland	Statewide
Planned Practices	Benchmark Description		Planned System Description and How Practice Support the System	
Conservation Crop Rotation - Waste Utilization - 633 Grassed Waterway - 412 Nutrient Management - 590 Pest Management - 595 Residue Management, No-till & Filter Strip - 393A	Cropland used for grain and forage (corn-corn silage-wheat-hay-hay-hay) production. Sheet and rill erosion is a major concern as well as concentrated flow (ephemeral) erosion. Slopes range from 8-20%. Mulch tillage is used with about 30% cover after planting all crops. Soil tests are not used to plan fertilizer and manure application rates. Nutrients, pesticides, and sediment are surface water quality concerns. The soil crusts in the spring and impacts crop emergence and water infiltration.		A rotation of corn-corn silage-wheat- and 3 years of hay is planned combined with no till crop production. The combination of the no till, with high residue management, and rotation will reduce erosion from 7-12 tons down to 3-4 tons/ac/yr and significantly reduce the transport of nutrients, pesticides, and sediment from reaching surface water. Nutrient and pest management will better improve the use of nutrients and pesticides and reduce runoff. The filter strip will further reduce sediment, nutrient, and pesticide transport to surface water. The no till and rotation will also improve the tilth of the soil. The grassed waterways will control the gully erosion.	
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Resource Concerns	Benchmark Effects	Planned System Effects	Impact of Planned System	
Soil Erosion; Sheet & Rill	Sheet and rill erosion ranges from 8-15 tons/ac/yr using mulch till with 30% cover.	Erosion to reduced to tolerable levels with residue mgt. and rotation.	Erosion reduced from 7-12 tons to 3-4 tons/ac/yr.	
Soil Erosion; Concentrated Flow	Concentrated flow erosion results in gully erosion about 1 ft. deep by 1 ft. wide annually.	The grassed waterway controls gully erosion.	Erosion reduced from 46 ton per 1000 ft. to nearly zero.	
Water Quality, Surface Water; Pesticides, Nutrients, Organics,	The high erosion rates transport sediment, nutrients, and pesticides to surface water.	The transport of nutrients, pesticides, and sediment is significantly reduced.	Water quality goals met through BMP implementation.	
Soil Condition; Tilth, Crusting, Infiltration, Organic Matter	The intensive cropping and tillage system decreases O.M. and increases soil crusting.	The rotation and tillage system will increase O.M. and tilth.	Soil condition index increased from .04 to .49.	
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